

AMENDMENTS

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): An apparatus for determining ear fluid viscosity, the apparatus including:

a transducer operable to transceive a signal to interact with a fluid-containing portion of the ear; and
means for determining the viscosity of the fluid using the transceived signal.

Claim 2 (original): An apparatus as set forth in claim 1, wherein the means for determining the viscosity includes means for determining signal amplitude.

Claim 3 (original): An apparatus as set forth in claim 1, wherein the means for determining includes means for determining whether the viscosity is indicative of an ear disorder.

Claim 4 (original): A method of determining ear fluid viscosity, the method including:

operating a transducer to transceive a signal that interacts with a portion of an ear that contains fluid; and
determining a viscosity of the fluid using the transceived signal.

Claim 5 (original): A method as set forth in claim 4, wherein the step of determining the viscosity includes determining signal amplitude.

Claim 6 (original): A method as set forth in claim 4, wherein the step of determining the viscosity includes determining whether the viscosity is indicative of an ear disorder.

Claim 7 (new): A diagnostic test for otitis media, comprising: detecting the presence and measuring the viscosity of middle ear effusion in a human patient; and comparing the measured viscosity of the middle ear effusion in the human patient with at least three predetermined values for effusion viscosity, wherein such comparison provides information regarding the likelihood of presence of bacterial infection in the middle ear effusion in the human patient.

Claim 8 (new): The diagnostic test of claim 7 wherein each of said predetermined values is based on a plurality of predetermined ranges of fluid viscosity measurements.

Claim 9 (new): The diagnostic test of claim 8 wherein the predetermined ranges of fluid viscosity measurements are obtained from fluid viscosity measurements selected from the group consisting of middle ear effusions from the general human population, middle ear effusions from a select population of human subjects, and simulated middle ear effusions from a model system, and wherein said comparing step comprises determining in which of said plurality of predetermined fluid viscosity ranges the human patient's middle ear effusion viscosity falls.

Claim 10 (new): A method for detecting in an animal the presence and characterizing the viscosity of middle ear effusion by transmitting a signal into an ear canal of the animal, receiving a reflection of the signal, and comparing the received signal with a standard comprising a range of signals obtained with fluids of varying viscosities, wherein the range of signals are normalized to reflect a measurement of viscosity.

Claim 11 (new): The method according to claim 10 wherein at least one ultrasound transducer is used for signal transmission and reception.

Claim 12 (new): A method for determining if a human patient is a candidate for receiving antibiotic treatment, wherein the presence of middle ear effusion in the patient

is detected and the effusion viscosity is determined and compared with at least one predetermined fluid viscosity value.

Claim 13 (new): The method of claim 12 wherein an ultrasound probe is used to detect and measure effusion viscosity.